

### REMARKS

Claims 1-3, 5-57, and 59-76 are pending as of the Official Action dated October 28, 2009. Claims 1, 19, 37, and 55 are in independent form. Claims 1, 5, 9-11, 14-19, 22-23, 27-37, 40-41, 45-55, 59, 63-65, and 68-72 are being amended. No new matter has been added. Support for the amendments to the claims can be found, for example, in the specification on page 5, paragraph 22.

Reconsideration of the action is respectfully requested in light of the foregoing amendments and the following remarks.

### **Allowable Subject Matter**

Applicant appreciates and acknowledges the Examiner's indication that claims 23-31 and 41-49 would be allowable if rewritten to include all of the limitations of the respective base claims and any intervening claims. Applicant reserves the right to amend claims 23-31 and 41-49 at a future time to include the limitations of their respective base claims and any intervening claims.

### **Section 101 Rejections**

Claims 55-72 and 76 are rejected under 35 U.S.C. § 101 as allegedly being directed to non-statutory subject matter. Applicant traverses the rejections.

The Examiner stated that:

... [I]t is directed to a computer-readable medium having instructions stored thereon; since the specification does not indicate what computer-readable medium is being claimed, and based upon the state of the art, a computer-readable medium includes not only semiconductor memory, RAM, ROM, CD, floppy-disk, and hard drives but also can be signals transmitted to and readable by a computer, therefore the claimed computer-readable medium having instructions stored thereon can be a computer program, i.e. instructions, stored and transmitted over encoded signals; however claims directed to a transmitted "signal" nor to a "computer program" per se, is a process machine, manufacture, or composition of matter

and thus non-statutory. (Pages 2-3 of Official Action dated October 28, 2009)

Applicant respectfully disagrees. Applicant respectfully submits that a computer-readable medium is distinct from a signal. As an example, MPEP 2106.01 refers independently to a computer-readable medium and an electromagnetic carrier signal. *See, MPEP 2106.01 (“on a computer-readable medium, in a computer, or on an electromagnetic carrier signal”).*

Furthermore, Applicant respectfully asserts that claims 55-72 and 76 are not directed to a “computer program” per se. In particular, amended claim 55 recites “transmitting packets at the third different data transmission rate”. Applicant respectfully submits that claim 55 is tied to a statutory category that accomplishes the claimed steps, and transforms underlying subject matter.

Applicant respectfully requests that the § 101 rejections of claim 55 and claims 56-72 and 76, which depend from claim 55, be withdrawn.

## **Section 102 Rejections**

Claims 1, 19, 37, 40, and 55 are rejected under 35 U.S.C. § 102(e) as allegedly being anticipated by U.S. Patent Application Publication No. 2004/0160979 (“Pepin”). Applicant respectfully traverses the rejections.

The Examiner asserts that Pepin teaches all the features of claim 1. Applicant respectfully disagrees. In particular, the Examiner stated that:

... [P]aragraph 0012 recite bit rates being adjusted during operation to achieve a maximum user perceived performance whereby a quality of service probe is used to determine the end-to-end network path of the voice stream transmission to obtain a quality of service parameter which is used to determine the constraint that is associated with the voice stream transmission in order to adjust the bit rate clearly anticipate packets at a first data rate) ... . (Pages 3-4 of Official Action dated October 28, 2009) (emphasis added)

Applicant respectfully submits that the Examiner has failed to address the actual language of claim 1, which recites determining a signal quality value from received packets transmitted at a first data rate.

A portion of paragraph 12 of Pepin states that:

The present invention discloses a fixed or wireless terminal having adaptive coder bit rates that are capable of being adjusted during operation to achieve a maximum user perceived performance. The terminal or a network includes a multi-rate adaptive coder capable of transmitting a voice stream transmission that includes a source code bit rate and a channel code bit rate. A quality of service probing module is also included on the terminal that is operable to probe an end-to-end network path of the voice stream transmission to obtain at least one quality of service parameter. (Pages 1-2, paragraph 12)

Paragraph 12 of Pepin describes a coder that transmits a voice stream transmission that includes a source code bit rate and a channel code bit rate, and a separate module that probes an end-to-end network path to obtain a quality of service parameter. The coder uses “the optimal choice of source and channel bit rates given information on the packet loss and available bandwidth of the access network . . .” (Page 2, paragraph 33).

Applicant respectfully asserts that transmitting a voice stream transmission that includes a source code bit rate and a channel code bit rate and separately probing a network path to obtain a quality of service parameter, e.g., packet loss or bandwidth, is distinct from, and does not teach or suggest determining a signal quality value from received packets transmitted at a first data rate.

First, Applicant respectfully asserts that, to a person of ordinary skill in the art, a signal quality value is distinguishable from packet loss and bandwidth. Second, Applicant respectfully submits that the source code bit rate and channel code bit rate that are adjusted in Pepin, i.e., what the Examiner suggests teaches Applicant’s claimed first data rate, is not the data rate at which received packets are being transmitted from which a signal quality value is being determined. Rather, paragraph 12 of Pepin describes transmitting a voice stream transmission that includes a source code bit rate and a channel code bit rate and separately probing a network to obtain a quality of service parameter.

Claim 1 is submitted to be allowable over the cited portions of Pepin for at least these reasons.

Furthermore, claim 1 recited determining a packet loss indicator value from transmitted packets transmitted at a second data rate; and selecting a third different data rate in response to the signal quality value determined from the received packets transmitted at the first data rate and the packet loss indicator value determined from the transmitted packets transmitted at the second data rate, where the selecting includes selecting the third different data rate from a plurality of available data rates, and each of the plurality of available data rates is different from the first data rate and the second data rate. The Examiner asserted that paragraph 69 of Pepin teaches these features, stating that:

... [P]aragraph 0069 recite a bit rate adaptation module selecting the bit rate based on given information whereby the given information being the available bandwidth (i.e., the maximum transmission rate that can be sustained by the network path such that congestion does not build up), and packet loss, the bit rate adaptation module uses an algorithm to find the optimum rate, i.e. the third different data rate, that is adequate to result in desired speech quality given the packet loss rate; i.e. the second data rate .... (Pages 4-5 of Official Action dated October 28, 2009) (emphasis added)

Applicant respectfully disagrees. Nevertheless, as a clarification, Applicant has amended claim 1 to recite determining a packet loss indicator value from transmitted packets transmitted at a second different data transmission rate; and selecting a third different data transmission rate in response to the signal quality value determined from the received packets transmitted at the first data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate, where the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate.

First, the Examiner states that the packet loss rate described in paragraph 69 of Pepin is Applicant's claimed second data rate. Applicant respectfully asserts that a packet loss rate is

distinct from and does not teach or suggest a data rate, let alone a data transmission rate, as recited by amended claim 1.

Second, the Examiner asserts that the optimum rate, i.e., a selected combination of source and channel code bit rates, described in paragraph 69 of Pepin is Applicant's claimed third different data transmission rate. The cited portion of Pepin states that a bit rate adaptation algorithm module "chooses appropriate source and channel bit rates given information on the available bandwidth and packet loss rates on the network path of interest." (Page 5, paragraph 69).

Applicant respectfully submits that choosing an optimum combination of a source code bit rate and channel code bit rate based on bandwidth and packet loss rates is distinct from and does not teach or suggest selecting a third different data transmission rate in response to the signal quality value determined from the received packets transmitted at the first data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate, as recited by amended claim 1. In particular, Applicant respectfully asserts that bandwidth and packet loss rates determined by a probe are not the same as a signal quality value determined from the received packets transmitted at the first data transmission rate and a packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate.

For at least these additional reasons, Applicant respectfully submits that amended claim 1 is allowable over the cited portions of Pepin.

Claim 19, as amended, is directed to an apparatus and includes a rate selector operative to select a third different data transmission rate in response to the signal quality value determined from the packets received at the second different data transmission rate and the packet loss indicator value determined from the packets transmitted at the first data transmission rate, where the rate selector selects the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least

similar reasons as set forth above with respect to claim 1, claim 19 is allowable over the cited portions of Pepin.

Claim 37, as amended, is directed to an apparatus and includes selecting a third different data transmission rate in response to the signal quality value determined from the received packets received at the second different data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the first data transmission rate, where the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least similar reasons as set forth above with respect to claim 1, claim 37 is allowable over the cited portions of Pepin.

Claim 40 depends from claim 37 and is allowable for at least similar reasons as set forth above with respect to claim 37, and in view of the additional recitations it contains.

Claim 55, as amended, is directed to a computer-readable medium and includes selecting a third different data transmission rate in response to the signal quality value determined from the received packets transmitted at the first data transmission rate and the packet loss indicator value determined from the transmitted packets transmitted at the second different data transmission rate, where the selecting includes selecting the third different data transmission rate from a plurality of available data transmission rates, and each of the plurality of available data transmission rates is different from the first data transmission rate and the second different data transmission rate. For at least similar reasons as set forth above with respect to claim 1, claim 55 is allowable over the cited portions of Pepin.

### **Section 103 Rejections**

Claims 2-3, 16-18, 20-22, 34-36, 38-39, 52-54, 56-57, and 70-72 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pepin in view of U.S. Patent No. 5,483,676 (“Mahany”). Applicant respectfully traverses the rejections.

Applicant respectfully submits that the Examiner did not assert that Mahany teaches or suggests the features of claim 1, 19, 37, or 55. Applicant respectfully submits that claims 2-3 and 16-18; 20-22 and 34-36; 52-54; and 56-57 and 70-72 depend from claims 1, 19, 37, and 55, respectively, and are allowable for at least the same reasons set forth above with their respective base claims.

Claims 14-15, 32-33, 50-51, 68-69, and 73-76 are rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Pepin in view of U.S. Patent No. 7,075,913 (“Yavuz”). Applicant respectfully traverses the rejections.

Applicant respectfully submits that the Examiner did not assert that Yavuz teaches or suggests the features of claim 1, 19, 37, or 55. Applicant respectfully submits that claims 14-15 and 73; 32-33 and 74; 50-51 and 75; and 68-69 and 76 depend from claims 1, 19, 37, and 55, respectively, and are allowable for at least the same reasons set forth above with their respective base claims.

### **Conclusion**

By responding in the foregoing remarks only to particular positions taken by the Office, Applicants do not acquiesce with other positions that have not been explicitly addressed. In addition, Applicants’ arguments for the patentability of a claim should not be understood as implying that no other reasons for the patentability of that claim exist.

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Applicants respectfully request that all pending claims be allowed. Please apply any charges or credits to deposit account 06-1050.

Respectfully submitted,

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